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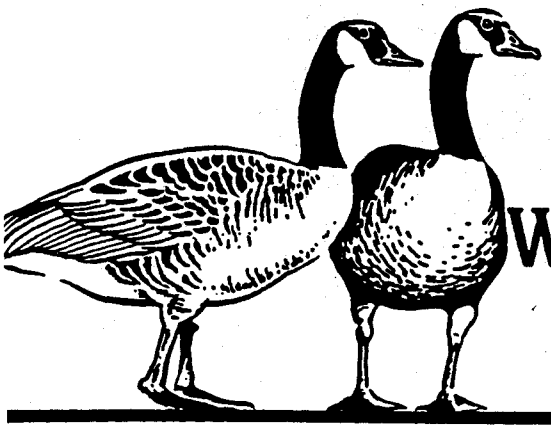

WATERFOWL PROGRAM

ILLINOIS DEPARTMENT OF CONSERVATION

DIVISION OF WILDLIFE RESOURCES

WATERFOWL HARVEST AND HUNTER USE IN THE REND LAKE QUOTA ZONE DURING THE 1992 WATERFOWL SEASON

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Abstract: Rend Lake and the surrounding area in Franklin and Jefferson counties comprise the Rend Lake Quota Zone. Hunter use and harvest at Rend Lake are determined from hunter registration sheets. Hunters are required to register before and after each day's hunt. The known goose harvest is then used as a percentage to project total harvest in the two counties. Rend Lake is assigned a harvest quota equal to 15% of the statewide Canada goose harvest allocation. The statewide Canada goose harvest allocation was 144,800 in 1991 and was reduced by 45% to 79,000 in 1992. The Rend Lake quota was 21,700 in 1991 and was also reduced by 45% to 11,850 in 1992. The goose season at Rend Lake opened 14 November and closed 79 days later on 31 January 1993. The daily bag limit was 2 Canada geese per day. In 1992, the duck season at Rend Lake opened 14 November (7 days later than 1991) and closed 30 days later on 13 December. A total of 3,894 ducks (2,566 mallards), 2,333 Canada geese and 20 snow geese were harvested by waterfowl hunters on the public hunting areas. A projected harvest estimate of 6,666 Canada geese or 56% of the assigned quota was harvested in the Rend Lake Quota Zone. Waterfowl hunters spent a total of 15,724 days afield (15% less than 1991) on the public hunting areas at Rend Lake. The duck and goose harvest decreased 48% and 54%, respectively between 1991 and 1992. Bag limits (conventional), shooting hours for ducks and season length did not change in 1992. Shooting hours were extending during the last 3 days of the goose season from 1 p.m. on the state area and 3 p.m. on private land to sunset. Duck hunters reported a success rate of 0.54 ducks per trip while goose hunters reported a 0.21 success rate after the close of the duck season. Access areas which recorded the highest duck harvest included: Cottonwood (649), Bonnie Camp (476), Silo (465), Dareville (457), Waltonville East (448) and Buck Creek (340). Goose hunters were the most successful at Turnip Patch (532), Cottonwood (298), Casey Fork Dam (264), Whistling Wings (171), Ina Boat Ramp (157) and Jackie Branch (124). Canada goose numbers peaked at 108,000 on 19 January 1993.

INTRODUCTION

Rend Lake is one of the largest and most diverse waterfowl management areas in Illinois, offering excellent hunting opportunities for both ducks and Canada geese. Waterfowl harvest at Rend Lake has been monitored annually since 1975. In 1979, waterfowl hunters using Rend Lake public access areas were required to register and report their daily harvest. The registration system was developed to determine hunter use and harvest at Rend Lake and this technique has proven to be reliable and accurate. Commercial goose clubs on private lands in Jefferson and Franklin counties are required to obtain a license and submit daily hunter registration and harvest sheets at the end of the hunting season. Prior to the 1982 season, noncommercial goose hunting areas were also required to register hunters and report harvest. Since 1982, the Canada goose harvest on private land in the surrounding area has been derived from the Illinois Waterfowl Hunter Questionnaire Survey, which has been conducted since 1981.

Rend Lake and the surrounding area in Franklin and Jefferson counties were designated as a Mississippi Valley Population (MVP) Canada goose harvest quota zone in 1986. Establishment of the Rend Lake Quota Zone has allowed for liberalization of harvest regulations while preventing overharvest in a high concentration area.

The Rend Lake Wildlife Management Area is a cooperative project between the U.S. Army Corps of Engineers (COE) and the Illinois Department of Conservation (DOC). The project consists of approximately 13,000 acres of land and water in Jefferson and Franklin counties. Implementation of the waterfowl harvest and hunter use survey was partially funded by Pittman-Robertson Project W-83-D.

Employees of the Division of Wildlife Resources, Division of Lands, and the COE assisted in the distribution and collection of hunter registration sheets in 1992.

METHODS

Waterfowl harvest and hunter use at all Rend Lake public access areas (40) were monitored using the mandatory registration system. A registration box was placed at each hunter access area around the lake as well as the Big Muddy and Casey Fork Management Areas. Hunters were required to register before hunting and report their daily harvest by number and species following each hunt. Registration sheets were collected daily and the number of hunters and harvest by species were totaled for individual access areas and for each day of the season.

Canada goose harvest and hunter activity on private land surrounding Rend Lake were estimated using three different methods. Commercial licenses were issued for all areas where payment was received for goose hunting privileges. On these commercial clubs, all hunters were required to register before hunting and report their harvest at the end of each hunt. Registration sheets were submitted by club owners at the end of the season to the Union County Refuge Office for tabulation of harvest and hunter use. The goose harvest on other private lands surrounding Rend Lake in Franklin and Jefferson counties was determined from the Statewide Waterfowl Hunter Questionnaire Survey, conducted after the 1992 waterfowl season (Anderson 1993). Finally, the projected total harvest in the quota zone was estimated using the mean reported harvest on the public hunting areas in past years. Analysis of the Canada goose population and harvest data at Rend Lake over the past five years revealed that hunters on the public hunting areas have consistently reported 35% of the total goose harvest in the Rend Lake Quota Zone. This percentage was then used to project total harvest throughout the season in the quota zone. Goose harvest on the public hunting areas was tabulated daily by DOC staff at the Mt. Vernon Game Farm. Projected harvest in the zone was determined and harvest update information was forwarded to the Rend Lake COE office, where it was provided to the public throughout the season by a recorded telephone message.

Canada goose populations at Rend Lake and other wintering areas in southern Illinois were monitored weekly by aerial inventories starting 19 October and continuing to 1 February. DOC biologists conducted the inventories using Department of Transportation aircraft (Cessna 210 or 337).

RESULTS AND DISCUSSION

The projected fall flight for MVP Canada geese in 1992 was estimated at 1.46 million. A snowstorm in late June caused high mortality among goslings across major portions of the MVP breeding range. The fall flight was reduced from 1.46 million to 1.20 million. Due to the reduction in the fall flight estimate, harvest allocations were reduced among the MVP harvest states. The Canada goose harvest allocation for Illinois decreased from 144,800 in 1991 to 79,000 in 1992. Season length in the Rend Lake Quota and Southern Zones decreased from 84 days in 1991 to 79 days in 1992. The daily bag limit for Canada geese was 2 in 1992.

The Rend Lake Quota Zone annually receives 15% of the statewide Canada goose harvest allocation. The harvest quota assigned to Rend Lake decreased (45%) from 21,700 in 1991 to 11,850 in 1992. The goose hunting season opened 14 November and closed 31 January. Shooting hours were extended during the last 3 days of the goose hunting season from 1 p.m. on the state area and 3 p.m. on private land to sunset.

Spring weather conditions arrived 1-2 weeks later than normal across the Arctic, northern and eastern Canada and the northcentral United States. Dry conditions existed during May across the central and western portions of the prairie pothole region.

The May (1992) pond index increased 12% and 17% in Prairie Canada and the northcentral United States, respectively. However, the number of May ponds were significantly below the long-term average (1961-92) for Prairie Canada (-18%) and the northcentral United States (-35%). Above average temperatures and below normal precipitation decreased the number of July ponds in Prairie Canada and the northcentral United States by 50% and 23% from 1991, respectively.

Precipitation arrived in survey areas too late to improve production of early nesting species. However, these rains likely benefitted late nesting species and improved the renesting index. Approximately 51% of the ducks within survey areas were located in Alaska/northern Canada, 35% in southern Canada and 13% in the northcentral United States. This distribution has changed considerably from the 1970's when water and upland nesting habitat conditions in the prairie pothole region supported 60% of the total breeding population.

The breeding population of all species of ducks increased 11% from 26.6 million in 1991 to 29.5 million in 1992. Total duck numbers reached their highest level since 1986, but remained 8% below the long-term average (1955-91). The mallard breeding population increased 10% from 5.4 million in 1991 to 6.0 million in 1992. Overall, the mallard breeding population is 17% below the 1955-91 average (Bortner et al 1992). The breeding population in 1992 increased in 7 species (mallard, gadwall, green-winged teal, blue-winged teal, northern shoveler, northern pintail, and redhead) of ducks greater than 10% from 1991. Only the canvasback, scaup and wigeon decreased from 1991. The fall flight index for ducks from survey areas has ranged from 55 - 88 million since 1970. The fall flight index increased from 61 million in 1991 to 62 million in 1992.

Season length (30 days) and bag limits (conventional) did not change in 1992. Illinois selected one-half hour before sunrise shooting hours option. The duck season at Rend Lake opened 14 November (7 days later than 1991) and closed 13 December.

The timing of the mallard migration through Illinois was normal (15 - 25 November) in 1992 compared to early (10 - 15 November) in 1991 as a result of a major winter snow storm occurring in Minnesota and Wisconsin. Major migrations of Canada geese to Rend Lake occurred on 4 and 11 December. An unusually dry July and August resulted in large acreages of wheat and millet planted in the refuge and subimpoundments. The abundance of food combined with good water levels provided excellent habitat

conditions at Rend Lake for migrating and wintering waterfowl.

Hunter Use

Waterfowl hunters reported a total of 15,724 days afield in 1992 (15% less than 1991) (Table 1). The 5-year (1988-92) average was 15,551 days afield, with a minimum of 6,555 in 1976 and a maximum of 18,553 in 1991.

Daily registration sheets revealed that 7,165 hunters (9% less than 1991) were afield during the duck season. An additional 8,559 goose hunters (20% less than 1991) were given the opportunity to harvest geese 49 days after the close of the duck season. During the duck season, the mean number of hunters per day was 239 (262 in 1991) and an average of 175 (199 in 1991) goose hunters per day were active on Rend Lake after the close of the duck season.

Public access areas receiving the highest hunting pressure included: Cottonwood (1,621), Turnip Patch (1,607), Casey Fork Dam (1,223), Dareville (1,015) Ina Boat Ramp (940) and Whistling Wings (860) (Figure 1).

Sixteen licensed commercial goose clubs in the Rend Lake Quota Zone reported a total of 2,776 days afield in 1992 (no change from 1991). The Statewide Waterfowl Hunter Questionnaire Survey indicated that a total of 6,000 hunters (9% less than 1991) spent 47,900 days afield (8% greater than 1991) in the Rend Lake Quota Zone (Anderson 1993).

Harvest

Hunters reported a total harvest of 3,894 ducks (48% less than 1991) at Rend Lake during the 1992 season (Table 2). Mallards comprised 66% of the harvest, wood ducks 12%, green-winged teal 4%, ring-necked duck 4% and black ducks 3%. The 1992 mallard harvest (2,566) was 38% less than the 1991 harvest (4,159) and 12% less than the 5-year (1988-92) average of 2,921. Harvest trends for dabbling ducks and diving ducks from 1988-92 are shown in Figures 2 and 3.

Access areas with the highest total duck and mallard harvest included: Cottonwood (649, 447), Bonnie Camp (476, 351), Silo (465, 343), Dareville (457, 284), Waltonville East (448, 254) and Buck Creek (340, 266) (Figure 4). These areas accounted for 73% of the total duck harvest on the public hunting areas in 1992.

A total of 2,333 Canada geese (54% less than 1991) were harvested on the public hunting areas at Rend Lake in 1992 (Table 3). The goose harvest is often incidental to duck hunting during the duck season. Hunters reported a harvest of 497 geese, or 21%

of the total, during the 1992 duck season. The majority of the harvest (79%) occurred in late December and January after the close of the duck season when 8,559 hunters harvested 1,836 Canada geese. Public access areas with the highest goose harvest included: Turnip Patch (532), Cottonwood (298), Casey Fork Dam (264), Whistling Wings (171), Ina Boat Ramp (157) and Jackie Branch (124) (Figure 5).

The Canada goose harvest on the public hunting areas totaled 2,333. The projected harvest estimate of 6,666 Canada geese for the Rend Lake Quota Zone was determined by dividing the reported harvest rate on the public hunting areas by 35% This was 5,184 geese less than the assigned quota of 11,850. The harvest estimate derived from the Statewide Hunter Questionnaire Survey after the season revealed a similar harvest estimate of 7,510 Canada geese in the Rend Lake Quota Zone (Anderson 1993). The U.S. Fish and Wildlife Service waterfowl parts survey generated a harvest estimate of 8,951 Canada geese in the Rend Lake Quota Zone. Sixteen commercial goose hunting clubs reported a total harvest of 767 Canada geese for the season (36% less than 1991) (Whitton 1992).

Hunter Success

Duck hunter success at Rend Lake (Table 3) decreased considerably in 1992 (0.54) compared to 1991 (0.96). Goose hunter success on the public hunting areas is influenced by cropping patterns, weather factors, migration chronology and the current age structure of the population. After the close of the duck season, goose hunters reported a success rate of 0.21 compared to 0.39 in 1991. The success rate in the Rend Lake Quota Zone as determined by the Statewide Hunter Questionnaire Survey was 0.16 goose per hunter in 1992 compared to 0.27 in 1991. Goose hunters on commercial clubs in the Rend Lake Quota Zone reported a success rate of 0.28 geese per hunter-trip in 1992 (0.43 in 1991).

Waterfowl Population Status

Canada goose numbers at Rend Lake gradually increased from 1,000 on 2 November to 41,000 on 16 December (Table 4). The peak number of Canada geese was recorded on 19 January when 108,000 (165,000 in 1991) were inventoried (Table 5, Figure 6). Canada goose numbers in southern Illinois and western Kentucky in 1992-93 peaked on 19 January (597,000) (583,000 in 1991-92).

Goose use-days (GUD) at Rend Lake in 1992-93 (3.4 million) decreased from 1991-92 (5.8 million). In 1992-93, Rend Lake accounted for 3.4 million GUD (16% of the total), Union County Refuge 3.2 million GUD (15% of the total), Horseshoe Lake Refuge 5.4 million GUD (26% of the total), Crab Orchard NWR 7.3 million GUD (35% of the total), and Ballard County, Kentucky 1.8 million

GUD (8% of the total). Goose use-days in southern Illinois and western Kentucky decreased from 25.7 million in 1991-92 to 21.3 million in 1992-93.

Six waterfowl surveys were conducted by the Illinois Natural History Survey (INHS) between 6 October and 18 December. Duck numbers on Rend Lake increased from 20 on 6 October and reached a peak of 56,400 on 17 November. Total duck numbers during this survey period in 1992 (90,870) increased considerably from similar surveys conducted in 1991 (18,830). Waterfowl surveys conducted in the Illinois River Valley revealed that total ducks peaked at 309,110 on 16 November (46% less than 1991). Similarly, total ducks in the Mississippi River Valley peaked on 4 November at 294,085 (7% less than 1991). The peak number of ducks for the two river systems combined (603,195) was 32% less than 1991 (886,995).

The peak number of mallards was reported on 17 November (40,000) compared to 21 November (7,900) in 1991. Mallard numbers totaled 68,170 during the 4 surveys conducted in the fall of 1992 compared to 12,550 for the same survey period in 1991. Mallards in the Illinois River Valley peaked at 246,605 on 16 November (48% less than 1991) and 171,225 (25% less than 1991) on 9 November in the Mississippi River Valley. The peak number of mallards on the two river systems combined (417,830) was 40% less than 1991 (701,300). The peak number of mallards observed on the Illinois River was the lowest recorded since surveys began in 1948.

CONCLUSIONS

Good spring planting conditions resulted in large acreages of crops planted in the refuge and subimpoundments. August brought cool and dry conditions which extended the fall pumping season. However, above average precipitation in November flooded most of major river systems and management areas. This combination resulted in an abundance of good habitat conditions throughout the state for migrating waterfowl. The distribution of corn on the Rend Lake Wildlife Management Area was improved which dispersed waterfowl and hunters. Additionally, the large acreage of jap millet planted on the east side of the refuge provided excellent habitat for ducks, as revealed by INHS aerial inventories.

No outbreaks of waterfowl diseases were detected from Rend Lake in 1992-93.

Results of the 1991 Illinois Waterfowl Hunter Survey revealed that 56% of the hunters supported the concept of a small controlled goose hunting area on COE property, while 12% did not express an opinion. Furthermore, if created, 51% would actively hunt in the controlled area, while approximately 27% did not express an opinion.

Extremely mild weather reduced early season and peak MVP numbers in southern Illinois for the second consecutive year. The lack of any appreciable snowfall and ice cover across the entire state throughout much of the winter widely dispersed Canada geese and reduced concentrations at traditional staging and wintering areas. Major migrations of Canada geese arrived at Rend Lake on 4 and 11 December. Unusually warm temperatures on 23 January encouraged many Canada geese to initiate their northward migration. Approximately 56% of the harvest quota was achieved.

Heavy snowstorms in late June across the MVP breeding range severely reduced recruitment in 1992, thus harvest allocations for MVP Canada geese are anticipated to be reduced in 1993.

The duck season in the southern zone began 5 days later in 1992 (14 November) than 1991 (9 November). This change allowed the opening of the duck season to coincide with the goose season opening. The peak number of mallards at Rend Lake in 1992 arrived 1 day after the peak was recorded on the Illinois River and 8 days after the peak on the Mississippi River. However, delaying the opening may have been 1 of the factors responsible for the significant decrease in the duck harvest in 1992. Large numbers of ducks were present 5-10 days prior to the opening, however a significant number of these migrants departed the area prior to the southern zone opening.

A unique combination of weather conditions, migration chronology and excellent habitat conditions at Rend Lake and statewide provided excellent waterfowl hunting in 1991. The 1992 waterfowl season was considered average over the long-term, however duck and goose harvests were considerably less than 1991.

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Table 1. Waterfowl harvest and hunter use on public hunting areas at Rend Lake, Illinois for the 1992 waterfowl season.

Public Access Areas	Hunter Use-days	Total Harvest			
		Mallards	Ducks	Canada Geese	Snow Geese
1. Bluegill Hole	72	1	8	11	1
2. Bonnie Camp	554	351	476	1	0
3. Bonnie South	773	7	37	91	0
4. Buck Creek	555	266	340	33	0
5. Button Bush Bay	44	2	5	1	1
6. C & E Lot	310	1	5	28	0
7. Casey Fork Dam	1,223	229	324	264	0
8. Casey Fork West	90	10	24	7	0
9. Cottonwood	1,621	447	649	298	5
10. County Line	355	2	7	42	0
11. Cypress View	101	8	28	10	0
12. Dam West	68	16	24	1	0
13. Dareville	1,015	284	457	117	0
14. Elk Prairie	109	6	10	7	1
15. Gun Creek West	118	1	6	4	0
16. Hamilton Branch	27	2	4	0	0
17. Honkers Point	236	0	2	78	0
18. Ina Boat Ramp	940	17	27	157	2
19. Ina Parking Lot	301	1	5	29	2
20. Jackie Branch	532	22	36	124	1
21. Ken Gray	286	5	7	19	0
22. Lambrusco	434	0	2	38	0
23. Mine 21	149	0	0	6	0
24. Nason North	206	52	88	13	1
25. Nason South	74	1	4	13	0
26. Pin Oak	230	79	134	7	0
27. Resort Ramp	60	0	0	30	0
28. River Road	39	1	3	0	0
29. RLCD Boat Ramp	264	19	25	37	0
30. RLCD Maintenance	27	0	2	0	0
31. Ryder Bottoms	42	1	5	0	0
32. Sailboat Harbor	66	6	20	1	0
33. Silo	801	343	465	44	1
34. Turnip Patch	1,607	19	36	532	2
35. Waltonville Dam	167	28	38	17	0
36. Waltonville East	652	254	448	5	0
37. Ward Branch	681	19	36	97	1
38. Whistling Wings	860	63	99	171	1
39. Willbanks Woods	0	0	0	0	0
40. Woodcock Ridge	35	3	8	0	1
Totals	15,724	2,566	3,894	2,333	20

Table 2. Harvest of ducks by species at Rend Lake, (Southern Zone) Illinois, 1985 through 1992. Data collected from hunter registration reports.

Species	1985	1986	1987	1988	1989	1990	1991	1992
Dabbling Ducks								
American Wigeon	115	142	145	54	95	77	157	98
Black Duck	113	122	179	182	261	184	304	132
Blue-Winged Teal	38	27	34	10	14	13	13	13
Gadwall	182	291	199	57	126	88	170	89
Green-Winged Teal	152	205	323	168	285	255	481	143
Mallard	3,273	2,964	3,915	2,556	2,519	2,803	4,159	2,566
Northern Shoveler	96	51	107	32	53	35	89	60
Pintail	85	62	82	23	41	35	49	33
Wood Duck	279	531	660	271	310	503	1,596	454
Total	4,333	4,395	5,644	3,353	3,704	3,993	7,018	3,588
Diving Ducks								
Bufflehead	52	54	35	30	27	41	56	17
Canvasback	46	15	0	0	0	1	26	20
Common Goldeneye	4	0	0	0	0	0	1	0
Redhead	70	68	24	21	14	12	36	19
Ring-Necked Duck	161	133	163	92	52	104	204	166
Ruddy Duck	27	20	17	7	13	7	28	21
Scaup	160	174	105	79	58	81	172	63
Total	520	464	344	229	164	246	527*	306
Total All Species	4,853	4,859	5,988	3,582	3,868	4,239	7,545	3,894

* 4 Mergansers were harvested in 1991.

Table 3. Waterfowl harvest and hunter success on public hunting areas at Rend Lake, Illinois, 1977-1992.

Year	Number of Hunters	Harvest Ducks	Harvest C. Geese	Hunter Success Ducks	Hunter Success Geese
1977	8,377	8,748	1,630	1.04	.19
1978	12,622	9,060	4,604	.78	.36
1979	12,978	5,375	1,917	.52	.15
1980	16,134	5,493	3,508	.39	.22
1981	17,873	6,285	2,827	.46	.16
1982	14,682	6,845	1,109	.57	.08
1983	13,352	8,270	1,856	.76	.14
1984	11,050	7,724	610	.70	.06
1985	8,964	4,901	1,214	.55	.34[a]
1986	14,300	4,859	2,042	.52	.32[b]
1987	14,867	5,988	1,676	.63	.28[c]
1988	14,748	3,582	4,177	.49	.43[d]
1989	14,148	3,868	3,971	.54	.45[e]
1990	14,580	4,239	3,068	.59	.31[f]
1991	18,553	7,545	5,032*	.96	.39[g]
1992	15,724	3,894	2,333**	.54	.21[h]

[a] Last 15 days of goose season after close of duck season

[b] Last 23 days of goose season after close of duck season

[c] Last 28 days of goose season after close of duck season

[d] Last 30 days of goose season after close of duck season

[e] Last 36 days of goose season after close of duck season

[f] Last 40 days of goose season after close of duck season

[g] Last 54 days of goose season after close of duck season

[h] Last 49 days of goose season after close of duck season

* An additional 54 snow geese were harvested.

** An additional 20 snow geese were harvested.

Table 4. Canada goose numbers at Rend Lake through the fall and winter, 1989-1992.

1989		1990		1991		1992	
Date	No. of Geese	Date	No. of Geese	Date	No. of Geese	Date	No. of Geese
10-23-89	5,000	10-15-90	3,500	10-15-91	5,500	10-19-92	3,500
10-31-89	8,000	10-22-90	5,000	10-21-91	4,000	10-26-92	4,000
11-06-89	9,000	10-30-90	12,000	11-04-91	5,000	11-02-92	1,000
11-13-89	12,000	11-07-90	13,000	11-13-91	6,000	11-09-92	4,000
11-21-89	14,000	11-13-90	15,000	11-25-91	8,000	11-16-92	9,500
11-29-89	14,000	11-19-90	12,000	12-04-91	15,000	11-23-92	10,000
12-06-89	18,000	11-26-89	12,000	12-10-91	165,000	11-30-92	14,000
12-11-89	14,000	12-05-90	43,000	12-16-91	145,000	12-07-92	29,000
12-18-89	13,000	12-10-90	70,000	12-24-91	152,000	12-16-92	41,000
12-26-89	3,000	12-19-90	80,000	01-10-92	15,000	12-21-92	27,000
01-02-90	40,000	12-31-90	125,000	01-21-92	45,000	01-06-93	28,000
01-08-90	90,000	01-14-91	136,000	01-27-92	60,000	01-14-93	60,000
01-16-90	170,000	01-22-91	112,000	02-05-92	31,000	01-19-93	108,000
01-22-90	120,000	02-04-91	90,000			01-25-93	85,000
01-29-90	85,000					02-01-93	63,000

Table 5. Peak numbers of Canada geese at Rend Lake, Illinois 1971-1993.

Year	Number of Geese	Date
1971-72*	6,000	Dec. 22
1972-73	2,000	Dec. 13
1973-74	13,000	Jan. 04
1974-75	32,000	Dec. 18
1975-76	50,000	Jan. 22
1976-77	42,000	Dec. 14
1977-78	100,000	Jan. 23
1978-79	62,000	Jan. 04
1979-80	90,000	Jan. 14
1980-81	88,000	Jan. 27
1981-82	120,000	Jan. 18
1982-83	40,000	Feb. 03
1983-84	44,000	Feb. 07
1984-85	72,000	Jan. 15
1985-86	70,000	Dec. 09
1986-87	65,000	Jan. 13
1987-88	110,000	Jan. 25
1988-89	135,000	Jan. 23
1989-90	170,000	Jan. 16
1990-91	136,000	Jan. 14
1991-92	165,000	Dec. 10
1992-93	108,000	Jan. 19

* First year that Canada geese started using Rend Lake

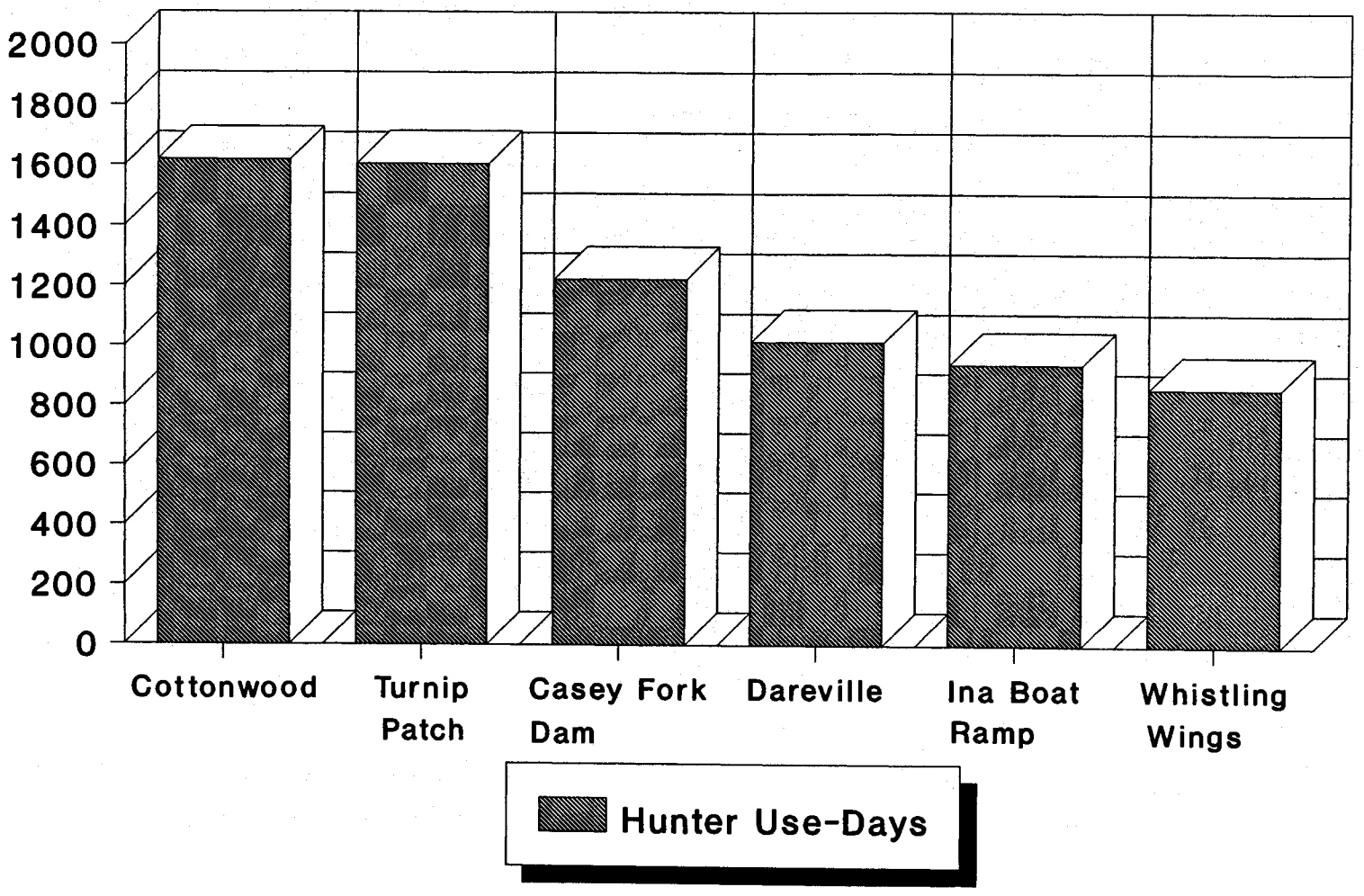

Figure 1. Number of hunter use-days at six access areas at Rend Lake, 1992.

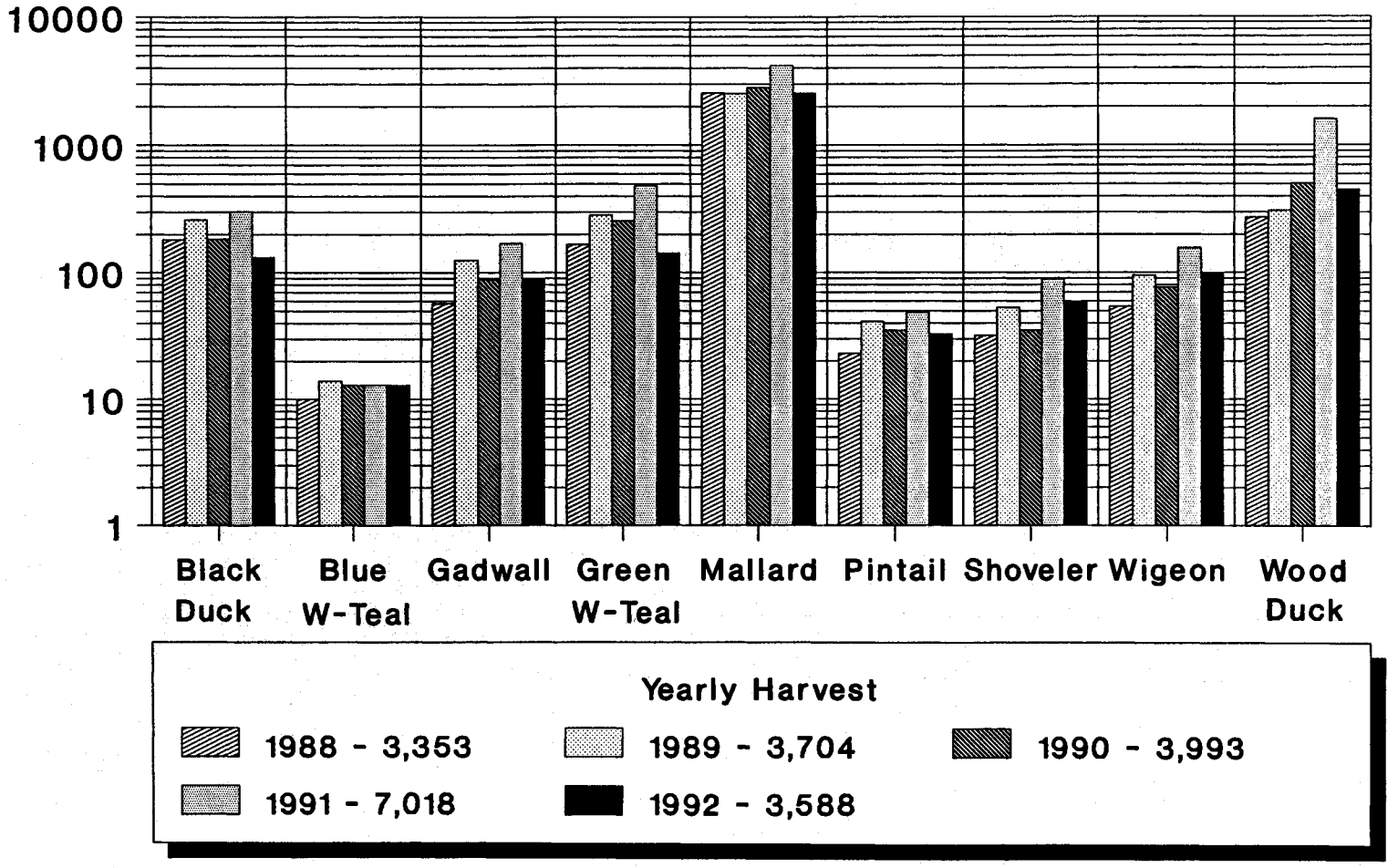

Figure 2. Dabbling duck harvest at Rend Lake, 1988-1992.

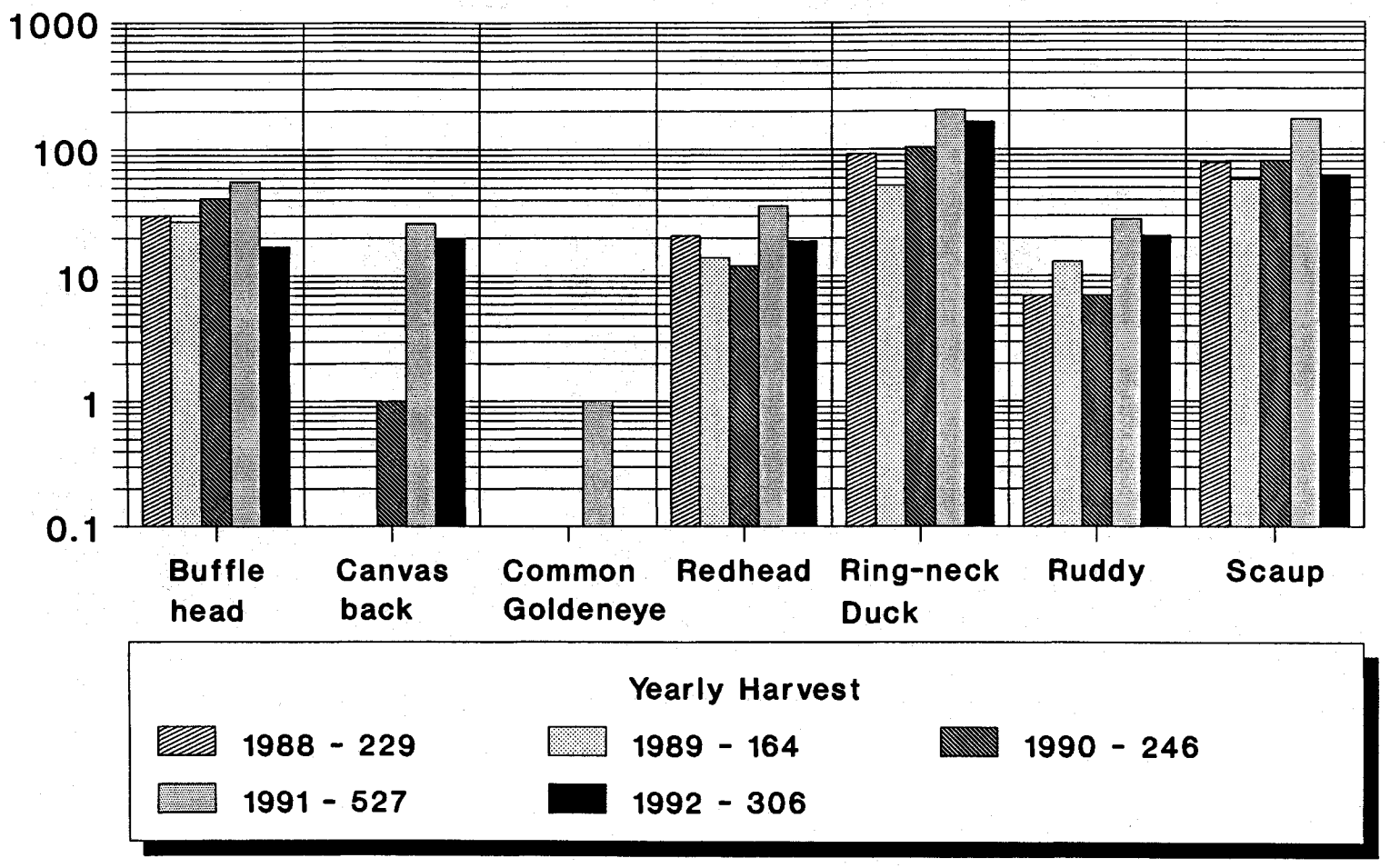

Figure 3. Diving duck harvest at Rend Lake, 1988-1992.

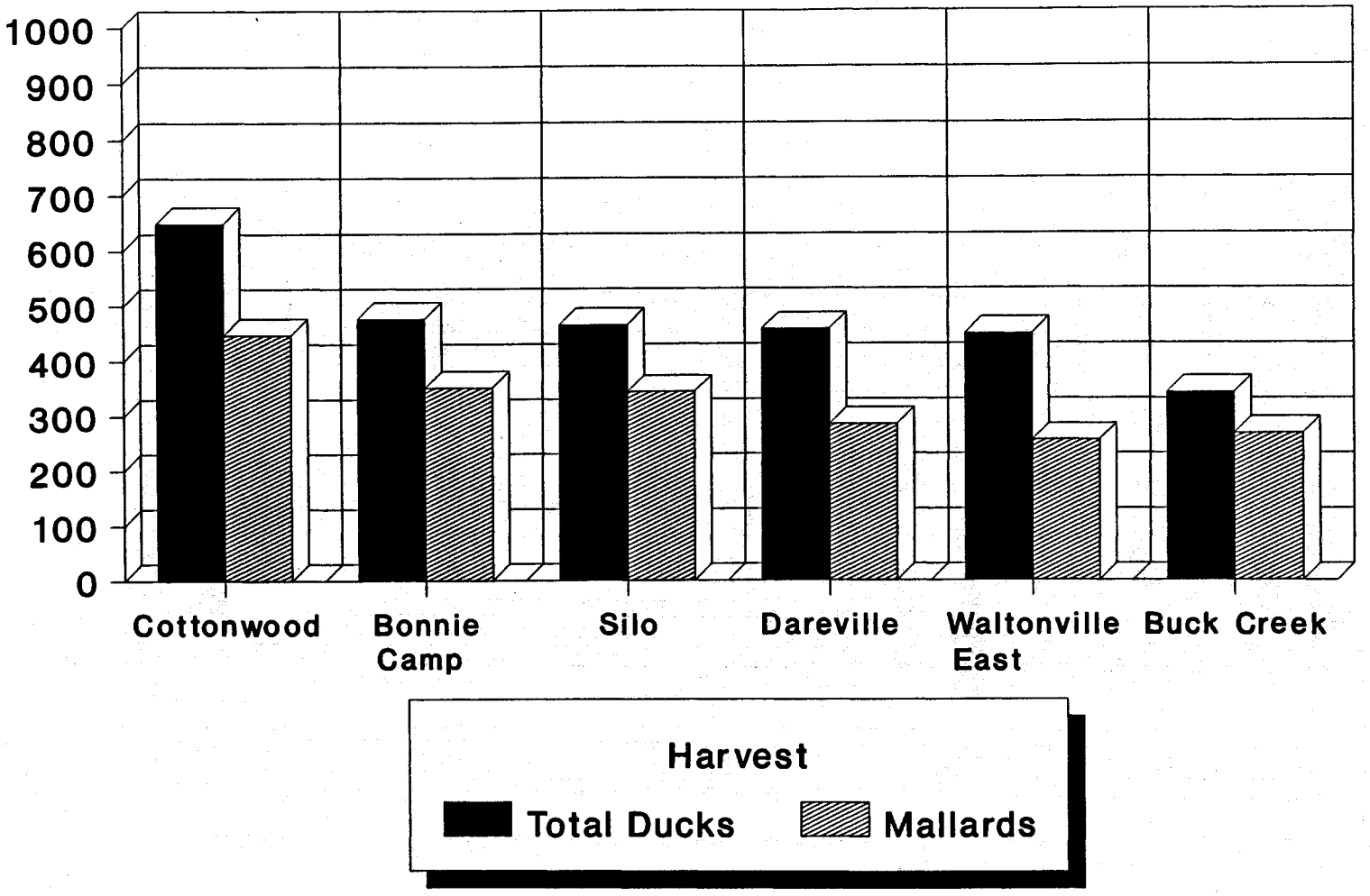

Figure 4. Total ducks and mallard harvest at six access areas at Rend Lake, 1992.

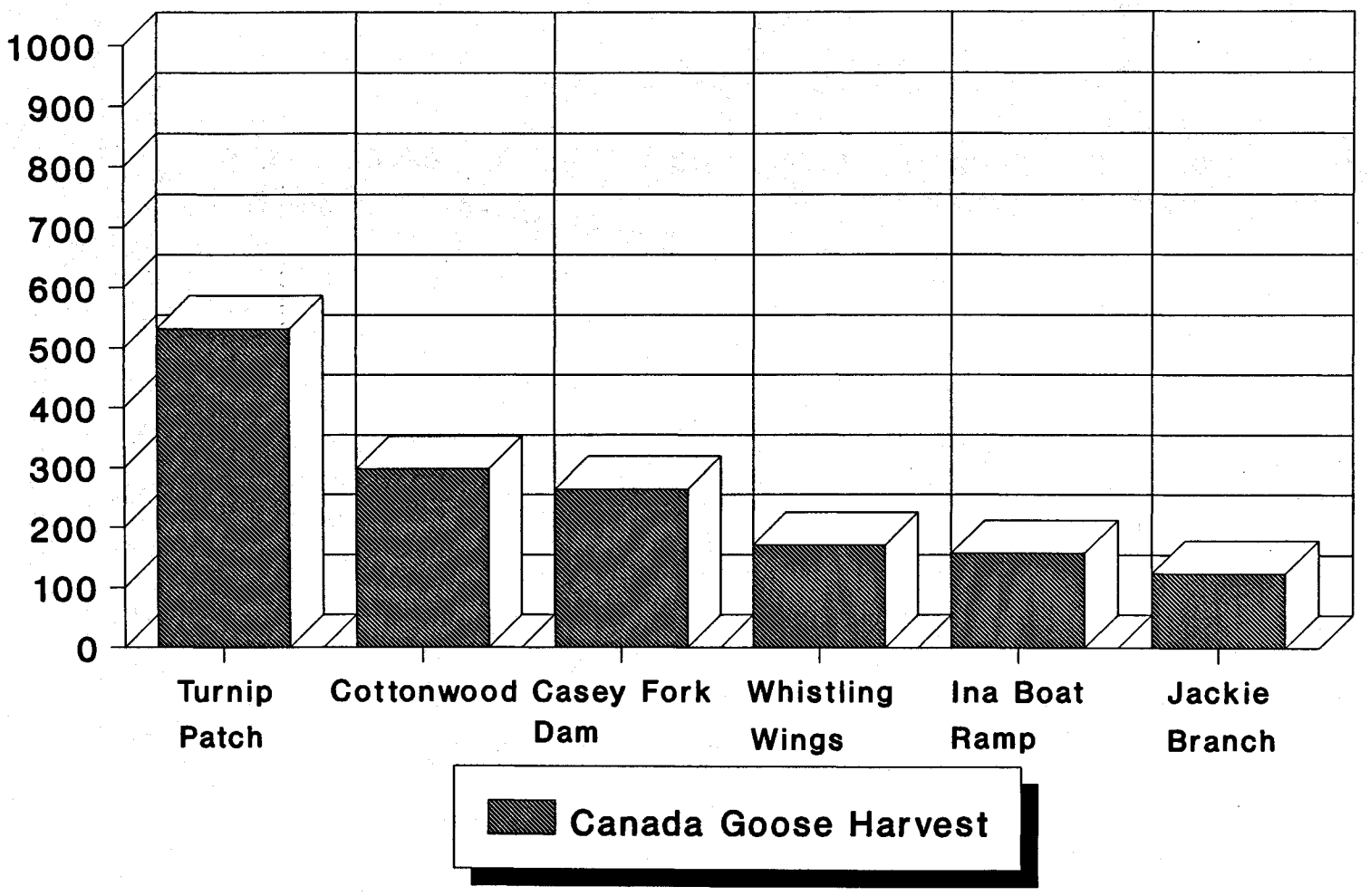

Figure 5. Canada goose harvest at six access areas at RendLake, 1992.

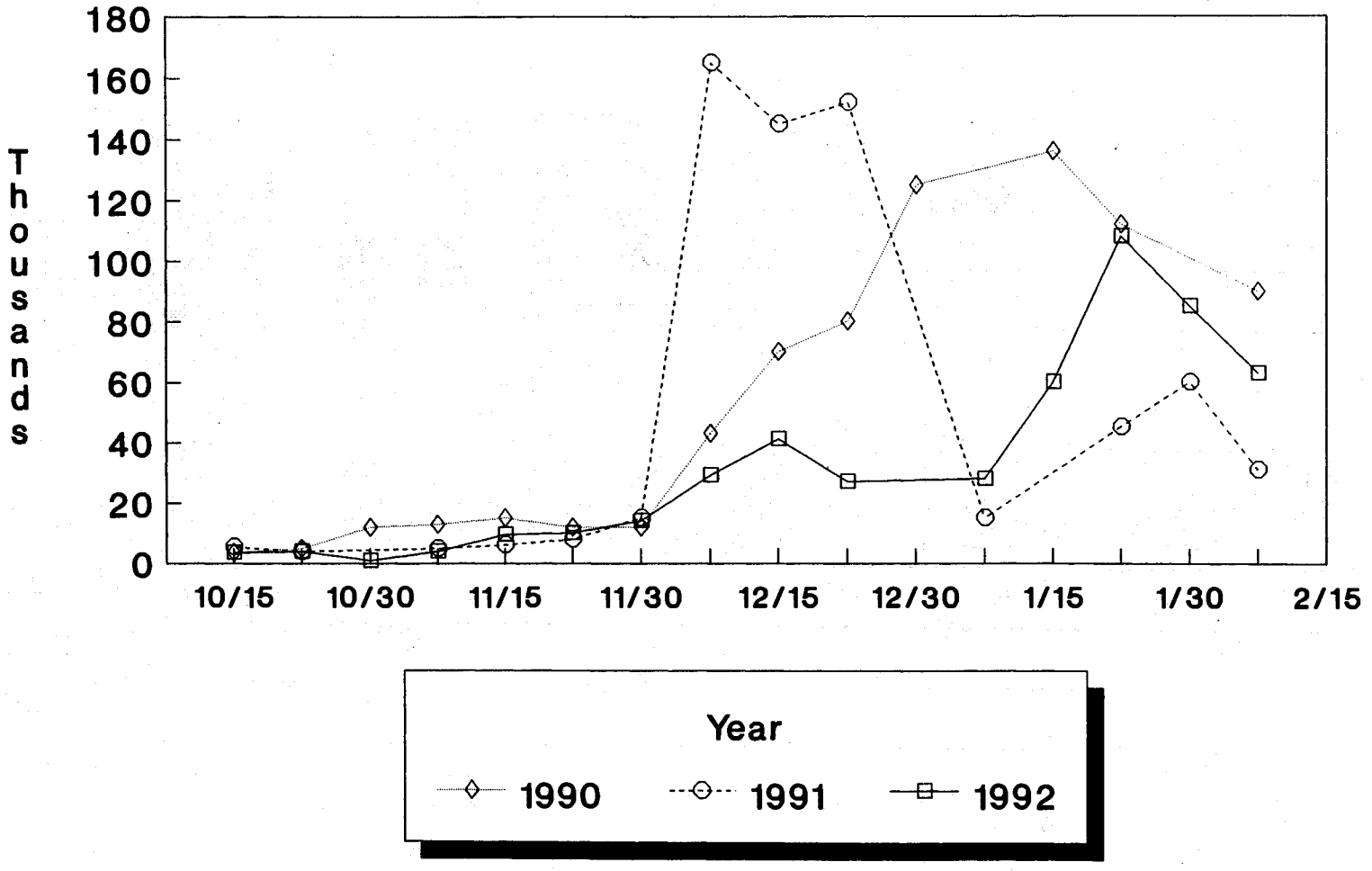

Figure 6. Numbers of Canada geese at Rend Lake, 1990-1992.